

A Strategy, Structure, Human Resource Database: OASIS*

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Traditionally, strategic planners and human resource professionals have taken separate approaches in their attempts to improve organization functioning. As a result, strategic planners lack important information that affects the implementation of their plans and human resource managers have little impact on the strategic direction of their organizations. The University of Michigan, Hay Associates, and The Strategic Planning Institute have come together in a new venture to build a multicompany database that links organization characteristics and human resource and strategic planning practices with data on company financial performance. The database will be used to make intercompany comparisons on significant organization variables and to identify those practices that lead to improved financial performance.

Robert Frost's famous poem, "The Road Not Taken," describes the traditional choice between organizational practices and strategic management:

Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference.

Organization and strategic studies can be seen as the two roads. People have traditionally selected either one road or the other. Those concerned about strategy follow a path which emphasizes competitive analysis, market environment, and other external concerns to increase firm growth and financial performance. Those concerned about organization studies follow a path which emphasizes internal concerns such as structure, human resource systems, and managerial practices to help a firm reach its goals. Historically, selecting one path over the other "has made all the difference" because the two paths diverge. In this article, we propose that a merger between the two roads is not only possible, but invaluable to those traveling each separate path. We also introduce a research project

* Noei Tichy, Bob Rock, Sid Schoeffler, Doug Cowherd, and Dan Dennison are members of the team which has developed OASIS and have made substantial contributions to the ideas and concepts presented in this article.

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we have begun, called Organizational Strategy Information Service (OASIS), which brings the two paths together to the benefit of those traveling each path.

NATURE OF STRATEGY STUDIES

Strategic management has been defined as the process of general managers coaligning their organization to environmental opportunities and constraints (Schendel and Hofer, 1979). While there are many approaches to strategy studies (see Jemison, 1981), we focus on the Profit Impact of Market Strategies (PIMS) program and database to review the historical themes of and current trends in strategic studies.

Historical Themes

The PIMS program "has produced the most comprehensive set of research findings available in the field of strategic planning" (Wills and Beasley, 1982). These findings have helped to identify three themes of market regularities which affect firm financial performance, often measured by return on investment (ROI).

First, a firm's competitive position will affect its performance. A firm's competitive position refers to its relative product quality, relative cost position, and market share. Firms with higher quality products, for example, are likely to have better return on investment (Zeithaml and Fry, 1981). In particular, the PIMS program has identified market share as a key determinant of ROI (Buzzell, Gale, and Sultan, 1976). Firms with higher market share are able to create barriers to entry, to produce products at a reduced cost, and to maintain high customer visibility. Such competitive advantages lead to higher ROI.

Second, industry environment affects firm performance. Industry conditions include growth of the market and number and size of customers. Growth, for example, is positively correlated, albeit weakly, to return on investment.

A business can change its strategic position to respond to the above market regularities and help the firm increase market share and ROI. Key strategic decisions refer to allocation of resources to research and development, product quality, advertising expenses, manufacturing expenses, and vertical integration.

To find and verify the above results, the PIMS program has relied heavily on empirical, statistical tests. By using multiple regressions, advocates of the PIMS program propose that market regularities can be quantified. Over time, these regularities become "laws of the marketplace." Once identified and quantified, these laws can inform managerial decisionmaking and increase ROI.

While the PIMS program has been debated, most reviews have been favorable (Lubatkin and Pitts, 1983; Ramanujam and Venkatraman, 1984). The proposed market regularities do in fact exist. While accepting these regularities, other reviews highlight future needs in strategic thinking. In particular, better understanding of implementation techniques and organization processes have been identified as current concerns of strategic thinking.

As discussed in *Fortune* (December 27, 1982) strategic planning that overemphasizes formulation without attending to implementation offers a less than complete model for strategic thinking. Research from the PIMS database has identified "what" needs to be done to improve ROI. Current research needs to identify "how" firms can implement strategic plans.

In addition, in most strategy research, organizational processes are not systematically assessed. The organization is the underspecified "black box" which is less studied than market regularities. A current need for strategic management is to link organizational and management practices to strategic plans. Such linkages will identify, for example, what organizational structures, human resource systems, and managerial styles help a firm reach its strategic goals.

NATURE OF ORGANIZATIONAL STUDIES

While the strategy research has focused on how firms can respond to market regularities, organizational research has emphasized how internal organizational practices can help firms reach their goals. Below, we review historical themes and current trends in organizational research.

Historical Themes

A primary theme of organizational research is to identify how internal organizational practices affect individual and organizational outcomes. Organizational practices include structure of the organization, compensation systems, decisionmaking style, leadership style, and time allocation of managers. For example, Mintzberg's (1973) research identified how senior managers allocate their time, and the implications of their time allocation on personal and organizational goal achievement. Similar studies have been performed on a variety of organizational and managerial systems and practices (Kotter, 1982).

As these practices are identified, other research examines how some practices "fit" with each other. In more rigidly structured, bureaucratic organizations, managers with a more directive leadership style are more

likely to "fit" and therefore can be effective. A variety of fits have been assessed between and among environments, organizations, departments, individual jobs, work groups, and individuals (see Van de Ven and Ferry, 1980). When a fit exists between these components of organizations, both organizations and individuals benefit.

A final theme of organizational research is evidenced in the research highlighting informal organizational processes. Tichy (1983) identifies two such informal processes: political and cultural. Political processes refer to the allocation of resources through formal budget allocation procedures plus informal relationships and power bases. Cultural processes embody the values and norms of the organization. The seven dimensions of type Z companies (Ouchi, 1981) and eight characteristics of excellent companies (Peters and Waterman, 1982) are examples of cultural factors which affect individual performance in organizations. These cultural processes often direct, focus, and control individual behavior in organizations.

To test and verify the above themes, most organizational research has emphasized in-depth studies of organizations. Such in-depth studies complement empirical data collection with qualitative impressions of organizational practices. This body of knowledge has been used to describe internal organizational practices, to offer managerial consulting advice on how to improve organizations, and to identify how to help individuals and organizations change.

Current Trends

While organizational research has identified and described a number of organizational practices, much work still needs to be done. More complete models of organizations need to be developed and used. For example, most of the organization research does not include strategy. In fact, a firm's strategy may have a great impact on organizational practices and vice versa. Current organizational research is expanding to include strategic concerns as detriments and outcomes of organizational practices (Galbraith and Nathanson, 1978).

In addition, current thinking about organizational practices needs to move beyond simplistic, single-organization studies. Carroll's (1984) critique of *In Search of Excellence* highlights this need. He points out that while the eight characteristics of excellent companies are found in excellent companies, they are just as likely to be found in nonexcellent companies. This raises serious questions about the validity of these eight dimensions. He proposes that

... more serious inquiry into management effectiveness must involve interdisciplinary efforts that go beyond the level of anecdotes, secondary sources, and unexplained research. These interdisciplinary efforts should bring to bear

Table I. Current trends in strategy and organizational literature.

From	To
<i>Strategy management</i>	
Focus on strategy formulation	Specify strategy implementation/execution processes
Focus on market regularities	Specify how organizational processes affect strategic plans
<i>Organization studies</i>	
Focus on internal organization practices	Integrate organization practices with strategic goals
Focus on in-depth study of single organizations	Develop empirical models and tests of organizational practices and outcomes across organizations

technological, sociological, psychological, economic, and business disciplines on apparent successes and failures in this country and abroad—in a depth and over a period of time the authors do not contemplate. [p. 88]

What is called for is longitudinal, comprehensive assessment of how organizational practices affect personal and organizational outcomes.

While we recognize that the above review is brief and simplistic, we hope to have highlighted historical themes and current trends in strategy and organization literature. Our concern focuses on how to deal with current trends. Table I reviews the current trends in both strategic management and organizational literatures. Below we review a research project called OASIS which addresses the current trends of both strategy and organizational literature.

ORGANIZATION AND STRATEGIC INFORMATION SERVICE (OASIS)

Introduction

While the above review of strategy and organization literatures is not elaborate, it highlights the need for new research and applied efforts which bring together the two roads that have diverged over the last twenty years. In early 1983, representatives—from Strategic Planning Institute who have developed PIMS, Hay Associates who have experience in designing human resource systems, and the University of Michigan who have experience in assessing organizations—recognized the need to integrate strategy and organizational practices. These three partners formed a joint venture called OASIS.

OASIS is intended to provide business managers, strategic planners, human resource specialists, and organizational researchers with an im-

proved and factual base for designing and implementing strategies for business-unit success that take into account the interaction between strategic and organization practices. More specifically, the objectives of OASIS are:

- (1) To create a new database which integrates existing strategic and financial information from the PIMS database with organizational information. The database will be longitudinal and include information from a variety of firms in different markets and with different strategies.
- (2) To conduct a research program on the new database to discover how organizational practices interact with strategic position to drive business performance.
- (3) To establish a database-oriented applications program to help participating companies evaluate and redesign their organizational system and strategic goals. Such information should lead to more effective managerial and organizational decisions.

To accomplish these three purposes, the partners in OASIS are following a four-step sequence, each of which is described below:

- (1) develop a framework of how strategic and organizational practices can be integrated;
- (2) collect data from participating companies;
- (3) analyze, interpret, and feedback data to participating companies;
- (4) continue program to assess changes over time.

Development of a Strategic and Organizational Framework

The first step in launching OASIS was to develop an integrative framework of strategic and organizational concerns. The framework serves to clearly delineate what strategic and organizational practices will and will not be studied. A myriad of organizational practices could be assessed. To focus attention on key variables, an extensive literature review of organizational studies was done and a framework developed which encompasses organizational practices most likely to affect strategy and organizational outcomes. The framework also makes explicit the linkages between different organizational practices and how those practices affect each other and outcomes. Such a framework could have improved the research design used in *In Search of Excellence*. Finally, the framework highlights managerial decisionmaking responsibilities. Each component of the framework deals with actual organizational practices which managers may choose to implement.

Given these purposes, we developed the framework described in Figure 1. This framework encompasses many organizational practices which

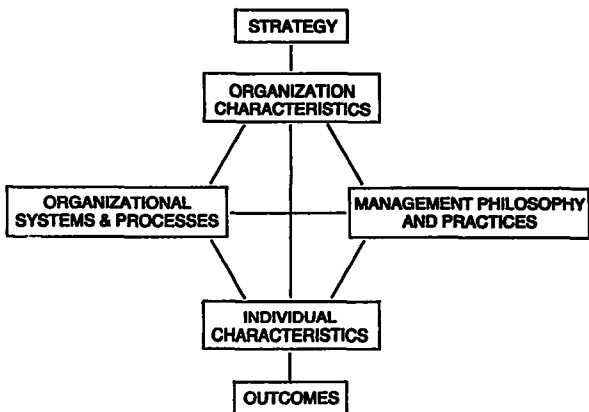


Figure 1. OASIS: integrative framework.

may affect financial and nonfinancial outcomes. We have grouped these organizational practices into four broad groups. First, organizational design refers to how the organization is structured. Over time as the cross-organizational and longitudinal database develops this component of the framework should help researchers and managers answer the following questions:

- What organization structure should be in place to help meet strategic goals?
- What work force composition best meets strategic goals and leads to higher financial performance? For example, what impacts do different line/staff or exempt/nonexempt ratios have on meeting strategic goals and financial performance?
- To what extent should business units be autonomous from central control? Should different business units with different strategic goals operate with differing degrees of control?
- What are the most appropriate ways to coordinate work within the business unit and between the business unit and corporate? Do different ways to coordinate work impact financial performance of the business unit?

Answers to these types of questions should help those concerned with organization design develop designs that better fit with the business unit strategy.

The second component of the framework deals with organizational systems and processes. This component deals with how organizational

services are delivered. From this component should come responses to such questions as:

- **What type of appraisal system can best be used to direct managers toward a firm's strategic goal? Under what conditions are objective systems (e.g., MBO) more effective than behavioral systems (e.g., BARS)?**
- **What impact does a high or low training budget have on organizational performance? Do business units with higher resources allocated to training experience higher performance?**
- **What are the impacts of differing incentive systems? Do business units with a higher proportion of incentive to base salary work more effectively with some strategies than others?**
- **What are the more commonly used criteria for determining incentive compensation awards? Do these differing criteria have an affect on financial outcomes?**
- **What is the impact of promotion from within versus promotion from outside?**

Responses to these questions should help business and human resource managers who have responsibility for designing appropriate human resource systems. Knowing the relationship between strategy, organizational processes and systems, and business unit performance provides important cues in designing organizational systems.

The third component of the framework deals with management philosophy and practices. This component emphasizes the managerial role in influencing organizational success. From this component should come answers to such questions as:

- **Is there a relationship between where senior managers spend time and an organization's success? Does time allocation of senior managers differ depending on the strategy of the business unit?**
- **What functions have the most influence in organizational decisions? Does the degree of influence of different functions relate to business unit performance?**
- **What are the key managerial decisionmaking levels around such issues as product pricing, transfer pricing, capital expenditures, and succession planning? Do different managerial styles and control over decisionmaking impact unit performance?**

Responses to these questions should help managers better allocate their scarcest and most important resource—time. Modifying managerial style,

involving different individuals in decisionmaking processes, and allocating time in appropriate ways are important questions for managerial performance.

The fourth component of the framework deals with individual characteristics of managers. This component emphasizes the importance of considering individual training and experiences for organizational outcomes. From this component should come answers to such questions as:

- What career experiences of business unit managers are related to effective business unit performance?
- What educational training of business unit managers is related to effective business unit performance?
- What are the relationships between job tenure, functional speciality, and age on business unit manager performance?

Answers to these questions may influence the selection and staffing issues as well as the development process for preparing business unit managers.

Developing the framework outlined in Figure 1 is a critical first step for the OASIS program. The questions addressed through the framework are concerns of strategic planners seeking techniques for implementing strategic directions and of human resources managers integrating their expertise with business unit managers to achieve firm goals.

Collection of Data

Using the framework reviewed above, information can be collected from participating companies. During 1983 and 1984, data collection tools were designed based on the four components of the framework. These data collection tools included both survey and interview information.

In 1984, a number of firms have joined the OASIS program and are participating in a pilot project. During this pilot project, these firms will collect information on business units using the data collection instruments. This information will be reviewed by OASIS staff to ensure integrity of the data collection and to ensure its comparability across firms.

Information for the data collection forms is supplied by three groups. From the strategic planners, information is gathered on strategic planning processes and competitive position. This information is consistent with previously validated PIMS instruments. From human resource executives, information is collected describing human resource and organizational practices. From business unit general managers, information is collected on their practices and concerns about the business.

The third step of the OASIS program tabulates that data and reports findings to participating companies. In this step, the responses to the questions reviewed above are answered and companies learn about their organization and strategic practices in three ways.

First, companies learn more precisely what their organizational practices consist of. One benefit of the OASIS program is the systematic collection of organizational data. While such information often exists, it is often scattered throughout the organization. Pulling such data together into one information source offers a clearer picture of what the companies' practices entail. For example, the process of collecting data on career paths of business unit managers may offer some surprising insights on what these paths actually are within a company. Learning more about existing practices is a primary outcome of the OASIS program.

Second, companies can learn how they compare with peers. One of the common questions we receive from managers is "How do my systems and practices compare with those in companies like ours?" Comparison with peers can occur for each of the components of the framework. Such comparisons can lead to valuable insights about how a company's internal practices are similar or different from peers. For example, a company's staffing costs and line/staff ratios may be much higher than that of their peers. Knowing this information may help focus company programs to improve productivity.

Finally, companies can learn how specific organizational practices relate to strategic planning and organizational outcomes. As reviewed in the above questions, issues about what organizational practices fit with what strategy and about how organization practices affect financial performance will be addressed through the database. Having specific information about how organizational practices affect financial performance should offer strategic planners valuable tools for implementing strategic plans. Such information will also offer human resource managers insights on which practices most affect financial performance. Knowing this information, human resource managers can provide specific and valuable additions to strategic thinking.

Perhaps the most valuable outcome of the OASIS program is that the information will be comparable across a variety of organizations. The historical limitation of organizational studies confined to one organization can be overcome by the database. Peer comparison and how practices affect outcomes can be systematically assessed through a large database.

Companies who participate in OASIS receive a feedback report covering the three forms of data analysis: self-analysis, comparison with peers, assessment of financial success. This feedback report is coupled with specific organizational and strategic recommendations to ensure that practices meet strategic goals.

The fourth step of the OASIS program is for participating organizations to continue to collect information over time. Longitudinal data collection will allow for the database to eventually respond to concerns about change in organizational practices and how those changes must respond to changes in strategy. Collecting the data annually will also offer an ongoing monitoring capability within the organization. Such a monitoring system can systematically follow changes in organizational practices and assess how those changes impact financial outcomes.

In 1984, with the beginning of OASIS, we see the value of the longitudinal data based on our experiences in a variety of companies. Many managers are interested in both the management of change and the monitoring of organizational practices. Such interests may be satisfied as OASIS evolves.

As OASIS continues, we are confident that the database will offer for those interested in organizational practices the same insights that strategic planners have garnered from PIMS. We see this as a valuable opportunity for those interested in human resource management.

OASIS AND HRM IMPLICATIONS

Above, we have reviewed current trends in strategic planning and human resource management. We have argued that some of the current challenges facing each discipline can be overcome by merging the two disciplines. We have proposed that OASIS, a new data-based decision support system, offers a merger which may benefit both disciplines. Below, we highlight the specific benefits of OASIS for human resource managers.

Defines Current Human Resource Practices

As mentioned above, one benefit of OASIS is that by systematically collecting human resource information, managers may better understand what practices are occurring within their organization. The example of career paths indicates the value of this outcome. Within many organizations there are stories and myths about which career paths lead to or away from senior management. Rather than rely on hearsay, the OASIS information will offer specific insights about implications of different career paths. This information can then serve to modify development and training programs and staffing practices.

Systematically defining current practices may also help human resource executives communicate their responsibilities to other managers. Human

resource encompasses a wide range of important organizational practices. Often the breadth of such activity is only partially understood by those not directly involved in the human resource function. The clearer definition of current HR practices offered by OASIS may be a vehicle for discussion with other managers.

Links Human Resource Practices to Strategy

Much has been written in the last few years about how human resources can and should be integrated with strategy (see Tichy, 1983). As Tichy describes the process, the primary focus was opening closed doors and getting the attention of senior managers and convincing them that human resources offered added value to the firm. Now, the problem is that the door is open and human resource managers must provide leadership in going through the door. Such leadership and specific activities which human resources may offer to strategy may be specified through OASIS.

Knowing what human resource practices fit with what strategies will give the human resource executive information to improve decision-making. For example, if a business unit is engaged in rapid growth with high risk, then appraisal, compensation, and staffing should be designed to encourage growth. Knowing characteristics of appraisal, compensation, and staffing systems in successful high growth business units should provide valuable information to the human resource executive.

Links Human Resource Practices to Other Organization Systems

In addition to strategy, human resources should fit with other organization systems. For example, knowing the human resource implications of different organization structures may help the human resource executive make more informed recommendations for organization redesign. Knowing how much time general managers spend on human resource activities in other successful companies may help human resource executives modify the time they spend with general managers.

Links with Financial Outcomes

While human resource activities play a key role in developing people, they also impact on business unit performance. Though it will take time before the longitudinal data exist to fully test the propositions, indicators of how human resource practices link with financial outcomes will be important derivatives of OASIS. For example, do firms which spend more money on training experience a higher ROI? While this relationship is obviously moderated by many other practices, such findings can be teased

out of the data over time. This information will be very valuable as human resource executives play increasingly central roles in business success.

Comparisons with Other Companies

Many human resource managers have very good information about how their compensation practices either lead or lag industry norms. Often, less information is known about other human resource practices, except through hearsay evidence. OASIS will provide an opportunity to systematically compare one's human resource practices with those of other companies. With this information more-informed decisions can be made to allocate more or fewer resources to specific human resource practices.

Highlights the Impact of Different Human Resource Practices

Human resources encompasses a vast array of organizational activity. Through analysis of the OASIS data, we should be able to identify which human resource activities have the largest impact on business unit performance. With this information, human resource executives can better allocate their resources.

CONCLUSIONS

Integrating strategic management and organizational practices requires efforts from both strategic planners and human resource managers. Strategic planners must acknowledge that organizational practices must be assessed and incorporated into their planning activities. Human resource managers must commit to systematic assessment and evaluation of their practices, linking those practices to firm strategies and financial outcomes. OASIS offers a unique opportunity to integrate strategic management and organizational practices. While not definitive, and clearly evolving, OASIS will provide systematic assessment about how organizational and human resource factors affect business unit strategy and performance.

We began this article with a poem about which road to follow; we will end with an excerpt from *Alice in Wonderland*. When Alice encountered the Cheshire Cat, the following discussion ensued:

Alice: Would you tell me, please, which way I ought to go?

Cat: That depends a good deal on where you want to get to.

Alice: I don't much care where.

Cat: Then, it doesn't matter which way you go.

We care about where strategic management and organization studies are going. We think it matters. We also feel that OASIS offers us one valuable road to begin the journey.

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References

- Buzzell, R., Gale, B., and Sultan, R. Market Share—A Key to Profitability. *Harvard Business Review*, 1976, 53(1), 97-106.
- Carroll, D. A Disappointing Search for Excellence. *Harvard Business Review*, 1984, 62,(1), 78-88.
- Galbraith, J., and Nathanson, D. *Strategy Implementation: The Role of Structure and Process*. St. Paul, MN: West Publishing, 1978.
- Jemison, D. The Importance of an Integrative Approach to Strategic Management. *Academy of Management Review*, 1981, 6, 601-608.
- Kotter, J. P. *The General Manager*. New York: Free Press, 1982.
- Lubatkin, M., and Pitts, M. PIMS: Fact or Folklore? *Journal of Business Strategy*, 1983, 3(3), 38-43.
- Mintzberg, H. *The Nature of Managerial Work*. New York: Harper & Row, 1973.
- Ouchi, W. *Theory Z*. New York: Addison-Wesley, 1981.
- Peters, T. J., and Waterman, R. H. *In Search of Excellence*. New York: Harper & Row, 1982.
- Ramanujam, V., and Venkatraman, N. An Inventory and Critique of Strategy Research Using the PIMS Database, *Academy of Management Review*, 1984, 9(1), 138-151.
- Schendel, D., and Hofer, C. (Eds.). *Strategic Management*. Boston: Little, Brown, 1979.
- Tichy, N. *Managing Strategic Change*. New York: Wiley, 1983.
- Van de Ven, A., and Ferry, D. *Measuring and Assessing Organizations*. New York: Wiley, 1980.
- Wills, L. A., and Beasley, J. E. The Use of Strategic Planning Techniques in the United Kingdom. *Omega*, 1982, 10, 433-440.
- Zeithaml, C. P., and Fry, L. W. The Impact of Real Market Growth on Strategy-Performance Relationships. *Proceedings of the American Institute for Decision Sciences*, 1981, 27-29.